Reference Manual

DATAKIT

PRELUDE

This documentation defines the whole features of the application **CrossManager**, designed to convert 2D and 3D models from a list of available input formats into one of the possible output formats.

New in this version:

- Addition of the OBJ importer (.obj files)
- Support of Catia V5 R24 files (V5-6 R2014)
- Support of Inventor version 2015 files

(see table in appendix for available combinations)

The configuration file dtkConfig.dtk is located in the following folder: C:\Users\[user_name]\AppData\Roaming\Datakit\CrossManager

as shown in the dialog box under "Configure":

Entity conversion All geometric entities as NURBS Keep assembly information Solid as group	Remove type entities Wireframe
Configuration File	akit\CrossManager\dt Default
C:\Users\datakit\AppData\Roaming\Dat	OK Cancel

It is made possible to select a different path for the configuration file via the button

The button Default makes it easy to get back to the default path.

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IV. To begin with

1.CONFIGURATION REQUIREMENTS

CrossManager is delivered by downloading **crossmanager_2014_installer_xxbit.zip** containing the installation program of the current release for Windows (NT4 / 2000/XP/Vista/7/8). 32-bit and 64-bit versions are available.

The hardware configuration (i.e. processor speed, RAM, etc.) mostly depends on the size of the files that have to be converted. However, 2 GHz CPU, 1024 MB of RAM are recommended. The installation of **CrossManager** will take about 150 MB on your hard drive disk.

2. LANGUAGE

CrossManager is available in the following languages: French, English, Italian, German, Czech and Chinese. To run it in the language of your choice, Press the **«Options»** button that opens the following window:

Options	
- Informations Computer name : HPTONY81 Host ID : 0019bbd6a663	
Browse/Install Licenses	Check Licenses
Language	
CrossManager 2012 Advanced (V.3.0.90)	[2012/09/20] OK

The combobox allows you to choose which language you want (English or French.) The Save icon (disk icon) redirects the Host Name and the Host Id of the PC into a file. The Browse / Install Licenses button allows you to select your license file at its location. And the Check Licenses button display the list of available licenses in a small Window.

3. DOCUMENTATION

The CrossManager documentation is available both in French and English, in .pdf format.

4.CROSS MANAGER INSTALLATION

4.1. Software installation

The downloaded file **crossmanager_2014_installer_xxbit.zip** allows installing CrossManager with the setup program included in the compressed file.

The program suggest you to install **Visual C++ Runtime Libraries** (**x86 or x64**) if these one are not yet installed on your computer.

4.2.License installation

In the **«Options»** menu, click on the **« Browse/Install licenses »** button, then browse your disk to the location of your license file and select it.

5. HOW TO REMOVE CROSSMANAGER

Proceed as follows:

- Open Start | Parameters | Control Panel | Add/Remove Programs,
- Select CrossManager,
- Delete CrossManager,
- Remove all short-cuts from the *Start menu* if necessary.

6.TECHNICAL SUPPORT

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- <u>E-mail : support@datakit.com</u>

1. Product Overview

1. Contextual Menu (right button of mouse)

The mouse to be used for **CrossManager** needs two buttons at least, but profits of an eventual third one or of a wheel. This menu is depending of the context in which it is used, before or after the translation.

Kinds of actions

The mouse can be used in two ways, either by clicking, or by dragging.

- «Click» (press and release immediately a button without moving)
 - Clicks left are dedicated to choice of actions and highlighting.
 - Clicks right is dedicated to contextual menu.
- **«Drag & Drop»** (press a button and move the mouse, without releasing the button)

Drags are dedicated to addition of files in the list that fulfill the Input Format type.

- **«Double Click»** has no effect on the list before conversion. On the opposite, after conversion, it is the way to open the log file in notepad editor.

Here is the appearing menu when using **«right Click»**:

🔽 CrossManager 2012						_ 🗆 🔀
Select an input format	Catia V5 3D (*.CATPart;*.CATProduct)	•	Output fok	der		
Select an output format	Jt (*.jt)	-	📕 Healing	Configure	🔽 Write into ir	nput folder
Filename		Size	Folder			Status
				Add files		
				Options		
				Quit		
	Empty List	Run conv	ersion	Add files		Options
🚺 datak						Quit
	Copyright (c)	Datakit 2009-2	012. All rights res	erved.		

This menu let appear functions available with different buttons described below. The Menus Add Directory and Add Directory (recursive) as well as Load a list of files to be converted are not available in the basic version.

2. Input Format

When you click the black arrow of the combobox called **"Select an input format"**, here is the list of CAD format supported as input by **CrossManager**:

CrossManager 2012						X
Select an input format	Catia V5 3D (*.CATPart;*.CATProduct)	-	Output folder			
Select an output format	Shape DCM (**.dcm) ACIS (*.sat) CGR (*.cgr) Catds (_pd;*pd) Cata V4 20 (*.model;*.dlv;*.exp) Cata V4 30 (*.model;*.dlv;*.exp;*.session) Cata V5 3D (**.CATPart;*.CATProduct) Cata V5 3D (**.CATPart;*.CATProduct) Cata V6 2D (**.CATPart;*.CATProduct) Cata V6 2D (**.3dxm) Cercon 2.0 (*.art) Cerco (*.sdt) DWG (*.dwg) I-deas (**.arc) IGES 3D (**.igs;*.iges)		Folder	Configure	Vrite into inpo	ut folder Status
	Ide5 30 (*,ig5;-ige5) Inventor 30 (*,ipt;*iam) Jt (*,it) PARASOLID (*,x_t;*,x_b;*,xmt_bt;*,xmt_bin) ProE 2D (*,drw;*,drw,*) ProE 30 (*,prt;*,prt,*;*,xpr;*,asm;*,asm,*;*,xas) Procera (*,c3s) Robface (*,rf) Robface (exets (*,rf) Solid Ucfix (*,sdprt;*,sdram) Solid Ucfix (*,sdprt;*,sidasm) ThinkDesign 3D (*,e3) UG NX 3D (*,prt) UG NX 3D (*,prt) UG NX 3D (*,prt) VDAFS (*,vda)					
🚺 datak			onversion Ad	dd files		Options Quit

A filter will limit the selection of files to the selected format with the "Add Files" button.

3. Output Format

When you click the black arrow of the combobox called **"Select an output format"**, here is the list of CAD format supported as output by **CrossManager** that is displayed in the combobox :

CrossManager 2012					Z
Select an input format	Catia V6 3D (*.3dxml)	•	Output folder		
Select an output format Filename	Jt (*, jt) ACIS (*, sat) CGR (*, cgr) Cadia V4 (*, model) Catia V5 (*, CATPart; *, CATProduct) IGES (*, igs) JE (*, it) PARASOLID (*, x, t) Robface facets (*, rf) STEP (*, stp) STEP (*, stp) STEV (*, stp) STEV (*, stp) VDAFS (*, vda) Vrml (*, vrm)		Healing Folder F	Configure Write int	o input folder
🚺 datal		Run conv Datakit 2009-:	version Add	files	Options Quit

4. Output Folder (if required)

If the checkbox called **"Write into input folder**", is checked the output file generated by **CrossManager** will be created inside the input folder. If you want to choose your output directory, unchek this checkbox, and click on the "…" button in the upper right corner to select this folder.

CrossManager 2012				
Select an input format	Catia V6 3D (*.3dxml)	•	Output folder C:\	
Select an output format	Jt (*.jt)	•	Healing Configure	Write into input folder
Filename		Size	Folder	Status
		Rechercher un dossier	? 🔀	
		Select a folder : Poste de travail Win XP (C:) HP_RECOVERY Disque local (G Disque local (G Disque local (G Disque local (G Disque local (G Disque local (G Disque local (C) Disque lo	W (E:) :)	
🚺 data	cit 📕	Empty List Run con Copyright (c) Datakit 2009-		Options Quit

5. File Selection and List Creation

When you click on the "Add Files" button, the following window appears and let you select the database to convert with a list restricted to the chosen format of input files: (This list is limited to the number of 100 files to be converted for the basic version)

💽 CrossManager 2012			_ D X
Select an input format	Catia V4 3D (*.model;*.dl	v;*.exp;*.session) V;*.exp;*.session) V;*.exp;*.session)	
Select an output format	Cadds (*. pd)	▼ Vite into input folder	
Filename	Ouvrir Regarder dans :	? X 3D ✓ ← E ☆ E Status	
	Recent	reference IGES test	
	Bureau	Image: Display State DPLP MODULE 01MX.model Image: Display State Display State Display State Image: Display State Display State Display State	
	Mes documents	321M10005 SHDW1 3D.model 321M10008 7HDW1 3D.model 321M1010 9HDW1 3D.model 321M1010 9HDW1 3D.model	
	Favoris réseau	321M10119 21	
		Nom du fichier :	
		Fichiers de type : Catia V4 3D (*model;*.div;*.exp;*.session) Annuler	
1 dataki	t	Empty List Run conversion Add files	Options
		Copyright (c) Datakit 2009-2012. All rights reserved.	Quit

The **«Drag and Drop»** feature is also available to fill the list of input files to convert. The **«Drop»** of the file will be possible only if the selected file fulfill the input format chosen. This applies as well to Folders: All the files from this folder that fulfill the input format are added to the list.

6. Manipulation of List of files to convert.

Once your list is created, you can edit this list with the contextual menu as shown in the following window:

CrossManager 2012				_ = ×
Select an input format	Catia V4 3D (*.model;*.dlv;*.exp;*.session)	•	Output folder	
Select an output format	Cadds (*pd)	•	🗹 Healing 🛛 Configure 🔽 Write	: into input folder
Filename		Size	Folder	Status
11022UPR WORKNC.mode	2	1164 KB	R:\Modeles\Catiav4\3D	-
0118-NG.model		776 KB	R:\Modeles\Catiav4\3D	-
321M10005 5HDW1	3D.model	46 KB	R:\Modeles\Catiav4\3D	-
321M10008 7HDW1	3D.model	95 KB	R:\	-
	3D.model	218 KB	R: Run conversion	-
321M10102 9HDW1	3D.model	75 KB	D . V	-
	3D.model	78 KB	R: Remove from the list	-
321M10120 15 AB	IC 3D.model	47 KB	D.V	-
	3D.model	139 KB	Den containing folder	-
	B 3D.model	140 KB	R: Open output folder	-
	A 3D.model	143 KB	D.V	-
	3D.model	184 KB	R:\ Add files	-
0000670-LH COWL.model	ob model	214 KB	R: Empty List	-
7631-18.model		146 KB	R-V	-
7031-10.110021		110100	Options	
			Quit	
l				
				Options
🚺 datak	Cit Empty List	Run conv	version Add files	
) Datalit 2000		Quit
	Copyright (c) Datakit 2009-	2012. All rights reserved.	

The **"Run conversion"** menu as well as the **"Run conversion"** Button starts the converter with each file of the list created above one after the other.

The **"Remove from the list"** menu allows suppressing a set of selected files from the list. Furthermore file or Files can be removed from the list by highlighting the File(s) and pressing the **« Del»** key

The **"Open containing folder"** opens the folder in which is located the file, inside the File Explorer.

The **"Open output folder"** opens the folder in which output files are generated, inside the File Explorer.

The "Add files" menu as well as the "Add files" Button opens the File browser to select a new file for the list.

The "Empty List" menu as well as "Empty List" button clears the list of files to convert.

The **"Options"** menu as well as the **"Options"** Button opens the Options Window to allow you to change the Language of the interface.

The "Quit" menu as well as the "Quit" Button stops the execution of CrossManager.

7. Manipulation of List of files after conversion

After conversion has ended, you can use the **contextual menu** as shown below:

elect an input format	atia V4 3D (*.model;*.dlv;*.exp;*.session)	•	Output folder		
elect an output format	adds (*pd)		✓ Healing Configu	re 🗸 Write into inpu	t folder
Filename		Size	Folder		Status
11022UPR WORKNC.model		1164 KB	R:\Modeles\Catiav4\3D		OK
0118-NG.model		776 KB	R: Modeles \Catiav4\3D		OK
321M10005 5HDW1	3D.model	46 KB	R: Modeles Cational 2D		OK
321M10008 7HDW1	3D.model	95 KB	R: Modeles Cat Run conve	rsion	OK
	3D.model	218 KB	R: Modeles Cat		OK
321M10102 9HDW1		75 KB	R:\Modeles\Cat Save resul	ts report	OK
321M10119 21 3D.		78 KB	R: Modeles Cat	aining folder	OK
	D.model	47 KB	R: Modeles (Cat	-	OK
321M10121 13 3D.		139 KB	R: Wodeles \Cat Open outp	but folder	OK
321M10121 17 -AB 3D		140 KB	R: Modeles Cat Empty List		OK
321M10121 19A 3D		143 KB	R: Wodeles (Cat		OK
321M10123 17 3D.	model	184 KB	R: Modeles Cat Options		OK
0000670-LH_COWL.model		214 KB	R: (Modeles \Cat		OK
7631-18.model		146 KB	R:\Modeles\Cat Quit		OK
🚺 datakit	Empty List	Run conv	version Add files		Options Ouit

Le menu « Run conversion » allows running again converter on the files of the list.

The menu **« Save results report »** specific at this context allows to record the content of this window in an excel file (CSV Format) with all the File names, the File size and the status of conversion

The Menu **« Open containing folder »** allows opening with Windows explorator the folder in which input file is present.

The menu **« Open output folder »** allows opening with Windows explorator the folder in which output file is present.

The Menu « **Empty list** » specific to that context, as well as button, empties the spooler of files to convert.

The menu « **Options** » as well as button, allows opening Option window.

The menu « Quit » as well as button, ends the execution of the converter..

8.CONFIGURE

When **«Output Format»** is "IGES" or "STEP" you are allowed to filter some kinds of data by unchecking the checkbox **« correction »** (if not, the **« Config »** button is not active) When you Press the **« Config »** button, the following dialog box looks like that:



Parts can be deleted or written as blanked entities, as well as Assemblies or FDT.

Wireframe entities or FDT entities can be filtered and removed from the output.

The Dialog Box allows three parameters:

- Choose one model out of several in a catalog.
- Select a new referential by choosing an Axis placement
- Process of Layer by activation of a filter.

The converter allows you operate this transformation into the model:

- All geometric entities can be converted into nurbs (curves and surfaces)
- Keep assembly information or not.
- Keep Solid entities as group or not.

III Appendix
1 LIST OF AVAILABLE COMBINATIONS OF SUPPORTED FORMATS (Input / Output)

	Outputs																			
Inputs	ACIS	CADDS	CATIA V4 3D	CATIA V5 3D	CGR		DXF	IGES	л	Open CASCADE	Parasolik	PDF 2D	PDF 3D	Robcad	SolidWorks 3D	STEP	STL	Unisurf	VDA	VRML
3Shape DCM				12.20		х			X				X				Х			Х
ACIS		Х	Х	Х	х	х		x	-		Х		х	х	Х	х	Х		X	Х
CADDS	х		Х	Х	х	Х		x	x		Х		х	х	х	х	Х	X	Х	χ
CATIA V4 2D							X					х								
CATIA V4 3D	х	Х		Χ	Х	Х		x	X	Х	Х		х	Х	Х	х	Х	X	X	χ
CATIA V5 2D							X					х								
CATIA V5 3D	Х	Х	Х		Х	Х		X	X	Х	Х		х	Х	Х	х	Х	X	X	Х
CATIA V6 2D							X					х								
CATIA V6 3D	Х	Х	Х	Х	Х	Х		X	X	Х	Х		х	Х	Х	Х	Х	Х	Х	Χ
Cercon						Х			X				х				Х			Х
CEREC -						х			x				х				x			х
Sirona Dental						X			X			\vdash	X			\vdash	X		\vdash	X
DWG / DXF 3D				х	Х	^	\vdash	X			Х		^ X			Y	Ŷ		\vdash	Ŷ
I-deas	X	X	х	Ŷ	^		\vdash	^ X			Ŷ		^	Х	х	^ X	^	X	X	^
IGES	^ X	^ X	Ŷ	Ŷ	Х	Х		^	x		Ŷ		X	Ŷ	x		X		Ŷ	х
	^ X	Ŷ	Ŷ	Ŷ	^ X	Ŷ		v	Ŷ		Ŷ		^ X	Ŷ	x		^ X		Ŷ	Ŷ
Inventor	^ Х	^ X	x	x	^ X	x	-	^ X	ŕ	X	x	-	<u>^</u> Х	^ X	x		^ X		^ X	Ŷ
TL	^	^	^	^	^ X	x	-	^	~	^	^	-		^	^	^	-		^	
OBJ	v	v	v	v					X	v		-	X	v	v	v	X			X
Parasolid	Х	X	Х	X	X	X	-	^	X	Х		-	Х	X	X	X	X	X	X	X
PLMXML 3D					X	X	-	-	X			-	v			-	X		\vdash	X
Procera ProE / Creo						Х			×				Х			-	X		\square	X
Parametric 2D							X					х								
ProE / Creo Parametric 3D	х	х	х	х	х	х		x	x	х	Х		х	х	x	х	х	X	х	Х
Rhino 4	x	Х	х	х	Х	Х		v	x	v	х		Х	х	х	x	х	x	x	Х
Rhino 5	X		X	X	X				X		X		X		X	X	-			X
Robcad	X		X	X				X			X			X	X	X			X	
Solid Edge	X		X	X	X	Х		X		х	X		х		X		x			Х
SolidWorks 2D							X					х								
SolidWorks 3D		х	х	Х	X	Х		X	x	х	Х		Х	х		X	х	x	x	х
STEP	X		X	X	X				X		X		X		х		X			
UG NX 2D							X					х								
UG NX 3D	x	х	X	Х	X	Х		X	x	х	Х		Х	х	Х	x	X	X	x	Х
VDA	X		X	X	X				X		X		X		X	-	X			X
					-			1.00	1											